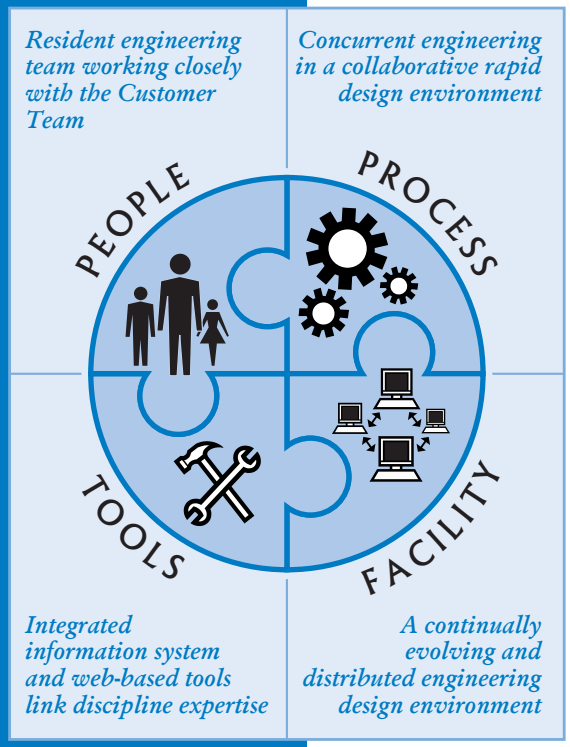
IMDC MISSION

By creating an environment powered by the combined strengths of four critical IMDC elements: people, processes, software tools and distributed facility resources; the IMDC:

- *Develops, defines and designs mission system concepts to support pre-formulation and formulation phase activities*
- *Leverages engineering expertise to provide an integrated data product in a timely and cost effective manner*



IMDC PARTNERS

Rapid Spacecraft Development Office (RSDO)

- *Facilitates quick access to previously developed spacecraft buses.*

http://rsdo.gsfc.nasa.gov/

Access To Space (ATS)

- *Facilitates planning for access to space and identifies access-related mission cost saving opportunities.*

http://accesstospace.gsfc.nasa.gov/

Instrument Synthesis & Analysis Laboratory (ISAL)

- *Facilitates creation, design, validation, and operation of remote sensing instrumentation.*

http://isal.gsfc.nasa.gov/

CONTACTING THE IMDC

The Internet

http://imdc.nasa.gov

E-Mail

imdc@gsfc.nasa.gov

Telephone

301-286-0063

Address

IMDC
NASA GSFC – Code 740
Building 23, Room N311
Greenbelt, MD 20771-0001

NP 2000-8-080-GSFC

INTEGRATED MISSION DESIGN CENTER

Goddard Space Flight Center

IMDC

FUTURE SOLUTIONS...NOW...

WHAT IS THE IMDC?

The IMDC is a human and technology resource dedicated to innovation in the development of advanced space mission design concepts and to increasing scientific value for NASA and its customers...

IMDC OBJECTIVES

- *Transform the mission design process, dramatically improving quality and productivity with ...*
  - *...advanced concepts within a rapid design environment*
  - *...end-to-end mission life-cycle products with customer focus and real-time interaction*
- *Serve a diverse group of customers and customer needs such as ...*
  - *...NASA, DoD, other Federal agencies, industry and academia*
  - *...Earth Science, Space Science, Technology, Human Flight*
- *Create a holistic engineering system...*
  - *...collaborative, concurrent engineering environment*
  - *...real-time analytical assessments*
  - *...distributed architecture and information*

IMDC PRODUCTS AND SERVICES

The IMDC provides engineering analyses & services for missions and provides end-to-end mission design products. Capabilities include:

- *Mission Studies, including System/ Subsystem Concepts, Requirements and Trades*
- *New Technologies & Risk Assessments*
- *Technical Reviews & Focused Studies*

WHAT TO EXPECT

A Concentrated Focus

- *Design sessions typically last one week*
- *Sessions tailored to fit specific mission requirements*
- *Support may range from one-day brain-storming to extended design sessions*

A Customer-Driven Process

- *The customer is a key member of the IMDC design process*
- *The customer is an integral decision-making member of the IMDC team*
- *The customer has the opportunity to influence & refine mission study objectives*

Benefits From Innovation

- *Ability of the customer to lead & drive the process*
- *A flexible design environment*
- *Integrated tools to enable early system trades*
- *Rapid, low-cost life-cycle studies*
- *Use of the latest technologies and methods*

IMDC EXPERTISE

IMDC mission systems expertise spans a very broad spectrum of activities, including:

- ACS Analysis/ Budget
- CAD Models
- Interface Definition
- Mission Costing
- Orbit Environment Assessment
- Performance Budgets
- Reliability, Integration & Test
- Solar Array & Battery Concepts
- Subsystem Grassroots Costing
- C&DH Concepts
- Comm Systems & Link Analysis
- L/V Compatibility
- Operations & Ground Systems
- Orbit/GN&C Analysis
- Propulsion & Propellant Definition
- Spacecraft Assessment
- Subsystem Component Summaries
- Thermal Analysis